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Quarterly Report  
January 31, 1968

Communication, Cooperation, and Negotiation  
in Culturally Heterogeneous Groups

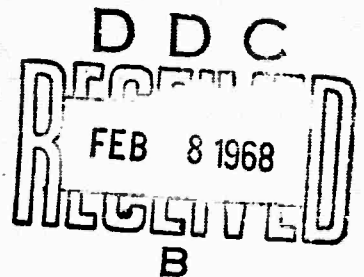
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COMMUNICATION, COOPERATION, AND NEGOTIATION IN  
CULTURALLY HETEROGENEOUS GROUPS

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January 1968

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## QUARTERLY REPORT

January 31, 1968

### Abstract

The focus of our project has continued to shift during the past quarter toward an integration of various subprojects and several studies of an integrative nature are in progress. Other studies concern the development of basic data on semantic features and culturally significant behavior, the dynamics of interactions in negotiation and bargaining, the effect of task structure on group climate and group interaction, and relevant methodological issues.

The two major studies which are currently in progress concern a comparison of training by means of Culture Assimilators and essays, as well as a concurrent comparison of training materials developed by means of the methods which have been developed by Triandis and by Osgood under Subproject I. This comparison should permit us to determine not only whether there is incremental value in Culture Assimilators over essays, but also whether the Subproject I material provides a better basis for developing either Culture Assimilators or essays.

The second major study in this category involved the development of an Iran Culture Assimilator and a field experiment to evaluate its effect on interactions of Americans and Iranians in cooperative and negotiation tasks. These are described below.

### Subproject I (Triandis)

#### Comparison of Cognitive Reorganizations Resulting from Culture Assimilator and Essay Training Based on Different Raw Data.

The major new undertaking during this past quarter has been a set of studies which involve the development of Culture Assimilators and essays based solely on material obtained by means of Triandis' Role and Behavioral Differentials, Triandis' Antecedent-Consequent Method, and Osgood's Intercultural Word Atlas.

We have obtained, in the course of the last several years, a substantial body of data on Greek culture. This material included data from Role and Behavioral Differentials, the Word Atlas, and the Antecedent-Consequent method, as well as data obtained from public opinion questionnaires which yielded stereotypes of Greeks and Americans. On the basis of these data, Triandis and Vassiliou prepared an extensive essay on Greek culture and Greek national character (Technical Report No. 55). This essay provided the basis of a shortened version of a Greek Culture Assimilator, prepared by Chemers, Symonds, and Mitchell.

We have developed a Culture Assimilator for Thailand, based on critical incidents. This Culture Assimilator was shortened to be roughly comparable in length to the Greek Culture Assimilator. In addition, Chemers, Mitchell, and Symonds prepared an essay on the culture of Thailand, based on the material contained in the Thai Culture Assimilator. We now have, therefore, two sets of culture training materials which are roughly equivalent: A Greek essay and a Greek Culture Assimilator; a Thai essay and a Thai Assimilator. They both present cultural

material to the trainee but they differ in the background data on the basis of which they were constructed: The Greek material is based on Subproject I data alone, while the Thai material is based on critical incidents and similar evidence.

The subjects of the set of studies using these materials were 50 Americans (military personnel) who were taking extension courses in the Athens branch of the University of Maryland, and 225 students at the University of Illinois. The men in Greece received the essay material on Greece. The students at Illinois received the two types, essay and Assimilator, training on Thailand and Greece.

The criteria consisted of pre-tests and post-tests of the trainees on scales which indicate their understanding of Greek or Thai culture. Furthermore, accuracy of social perceptions which the trainees gain as a consequence of their learning experiences was tested directly. The experiments provide a complete design to test not only the effect of training but also the possible confounding effects which the pre-tests might have upon subsequent responses by subjects. The complete research design is shown in Table 1.

On the basis of this study we hope to get answers to the following questions. (Some preliminary results are already available and are indicated below.)

A. What kinds of changes occur in Culture Assimilator training?

The results suggest that changes do occur and that these tend to be mostly changes in affect rather than in cognition.

Table 1Basic Design of Comparative Training Studies

At	Experimental Groups	Control Group 1	Control Group 2	Control Group 3
Time 1	Pre-test	Pre-test	-	-
Time 2	Culture training	Irrelevant training	Culture training	Irrelevant training
Time 3	Post-test	Post-test	Post-test	Post-test

- B. What particular cognitions about the other culture seem to change most?

As far as we can tell at this time, changes are mostly in the knowledge about the basic attitudes of members of the other culture.

- C. In what ways does Culture Assimilator training differ from reading an essay on the same topic?

Analyses are still in progress.

- D. Does being sensitized to "cultural issues," which happens with the pre-test, interact in any way with Culture Assimilator training?

Preliminary results suggest that the answer is affirmative.

The Summers, Stewart, and Oncken study of foreign policy-making in American and Arab dyads has been completed. The results (briefly described in an earlier report) are now being written up in Technical Report form.

The Antecedent-Consequent study of cultural influences on cognition has now been analyzed. A draft of a Technical Report reporting the results of this study has been sent to the co-authors for comments.

### Semantic Feature Analysis (Osgood)

Since the last report period, work has been concentrating on the validation of the use of ten a priori semantic features in discriminating the meaning of interpersonal verbs. Eight such validation studies are currently in progress and each will result in a separate Technical Report in the near future. Professor Osgood will participate in a Symposium on Language and Thought which will be held at the University of Arizona in late February, 1968. He will present a synthesis of theory and research on semantic feature analysis. This paper will be published as a Technical Report as part of the proceedings of this symposium.

One of the validation studies involves the data collected last spring by Judith Goodrich Ayer. Thirty-six subjects rated 40 interpersonal verbs on ten a priori features after they had been carefully instructed on the meaning and use of these features. The features were developed by Osgood (Technical Report No. 39) and were thought to underlie the differentiation of the meaning of interpersonal verbs (for example, the features Moral/Immoral, Superordinate/Subordinate, Associative/Dissociative distinguish different verbs). The a priori judgments were related to those obtained by Ss, by means of Chi square tests. These tests were run between the lower, middle, and upper thirds of the subjects' mean ratings for each verb on that feature (see Table 2). Seven of the ten features appear validated.



Table 2

Chi Square Analysis

Feature	$\chi^2$
Deliberate/Impulsive	7.05
Moral/Immoral	No analysis-a <u>priori</u> features unbalanced.
Supraordinate/Subordinate	40.63***
Future-oriented/Past-oriented	24.97***
Potent/Impotent	9.73*
Initiating/Reacting	43.81***
Associative/Dissociative	37.43***
Terminal/Interterminal	10.00*
Ego-oriented/Alter-oriented	27.56***
Active/Passive	No analysis-a <u>priori</u> features unbalanced.

Chi Square analysis between the lower, middle and upper thirds of instructed subjects' mean ratings of 40 interpersonal verbs on each of ten semantic features with the corresponding a priori ratings.

a df = 4 for all tests

\* p < .05

\*\*\* p < .001

Only the features Deliberate/Impulsive, Potent/Impotent and Terminal/Interterminal failed to reach the .001 level of significance, and the last two mentioned reached the .05 level. This shows that when individuals are given descriptions of the features, they can operate with most of them with an unusual degree of accuracy. Thus, several of the features identified to date do in fact contribute to the meaning of verbs.

The meaning systems of these subjects have been determined from factor analyses of these data, as well as from the same subjects' ratings on a pre-test involving judgments of all combinations of 30 interpersonal verbs with 30 adverbs -- for apposite, permissible and anomalous meaning pairings. A Technical Report describing these data and other procedures relevant to a semantic theory of features from the data collected in the Semantic Game Study is currently in preparation.

The Technical Report on the group dynamics and productivity of the groups assembled on the basis of differences and similarity in their use of the 40 interpersonal verbs should be completed by early March, 1968.

### Subproject III (Fiedler)

#### Iran Study

The field experiment conducted by Martin Chemers while at the Tehran Research Unit in Iran is now nearing completion. To recapitulate, the study involved a total of 57 Americans living and working in Iran. Of these, 30 were men, 27 were women. Each of these Americans was given either Culture Assimilator training or culturally irrelevant training on the physical geography of Iran. Each of the subjects was then assigned to work with two Iranians on one task requiring cooperation and on one task requiring the negotiation of an issue on which Americans and Iranians hold divergent values.

All data have now been punched on IBM cards, and data analysis is in progress. Initial findings of the study clearly indicate that the Culture Assimilator training had a significant effect on team performance, although, just as we have found in previous studies, there are a number of interactions with sex, with task, and with the leadership style score of the individual in charge of the group. We hope to have a substantial body of results ready for presentation in time for the next Quarterly Report.

#### Task Structure

A number of studies investigate the effect of task structure on leadership and group performance. Heterocultural interaction depends to a large extent, on the group task which members have to perform.

Tasks which require a high degree of collaboration, for example, will require group members to communicate more. Good interpersonal relationships under these conditions should, therefore, be more important for task success than in situations requiring a low degree of collaboration. Not only are member relationships partly determined by the nature of the group task -- so also is leader behavior. Tasks which are unstructured, for example, require the leader to initiate structure if his group is to work effectively.

Hence, it was assumed, that theories of cross-cultural interaction must also include reference to the type of task which members of different cultures perform together.

In order to obtain systemic information on the effect of task characteristics on group interaction, O'Brien has conducted a number of theoretical and laboratory studies. In an earlier Technical Report (No. 46), he derived a method of classifying tasks using Structural Role Theory. One dimension on which tasks may differ is cooperation and, in a study of military groups in Australia, it was shown that the cooperation requirements of the task affected interpersonal, structuring, and task behaviors of leaders and members (O'Brien and Biglan, 1967).

A laboratory study was performed which showed how, for a particular creative task, the form of cooperation imposed significantly affected productivity and the group climate (O'Brien and Ilgen, 1967). This study was reported in detail in the last report. Further analyses are now being performed to establish the effects of task structure on

leader behavior and leader effectiveness.

Since the last report, pilot runs of a similar experiment have been conducted. The group task used is a structured manipulative task, whereas the task used in the earlier study was a structured creative task.

These studies will provide knowledge about the way in which tasks may generate organizational and interpersonal problems for a group. This is part of the "situation-specific" knowledge which can be used in training persons for cross-cultural interaction.

#### Field Validation of Culture Assimilators

We are currently arranging to test the effectiveness of the Culture Assimilators in cooperation with various government agencies and private organizations.

Specifically, a joint study is now under discussion with the Agency for International Development (AID). This will compare culture matched groups of trained and untrained AID men destined for Thailand and Vietnam as well as Iran. Performance and adjustment scores of these men will be obtained after the first three months and again after nine months overseas. We are discussing a similar arrangement with the Peace Corps. This study would involve about 100 volunteers who are now being trained at the University of Hawaii.

We are also hoping to conduct a well controlled field experiment this summer in collaboration with the Los Amigos de las Americas organization in Central America. The Board of Directors, after a recent

meeting, has expressed its strong support for a continuation of our research relationship. We have been given to understand that we will be able to make assignments of leaders and team members in accordance with a predetermined experimental design. This will allow a test of various predictions which flow from our previous work of leadership and culture training.

PROFESSIONAL PERSONNEL  
(Contract Nonr 183/ (36)

1967 - 68

Personnel Supported by Contract

Ayer (Goodrich), Judith	Research Assistant	50%
Bates, Peter	Research Assistant	50%
Hewitt, Thomas	Research Assistant	50%
O'Brien, Gordon	Research Assistant Professor	67%
Oncken, Gerald	Research Assistant	50%
Stewart, Thomas	Research Assistant	50%
Summers, David	Research Assistant Professor	67%
Symonds, John	Research Assistant	50%
Wood, Michael	Research Assistant	50%

Non-salaried Personnel Working on ARPA ONR Project or Related Research

Chemers, Martin	Research Associate
Fiedler, Fred	Professor
Mitchell, Terence	Research Assistant
Osgood, Charles	Professor
Nealey, Stanley	Assistant Professor
Triandis, Harry	Professor

Foreign Consultants

Archer, W. K.	Tehran
Vassiliou, V. (M. Nassiakou)	Greece
Lekhyananda, Duangduen	Thailand

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